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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/069,726	02/28/2002	Yutaka Tsubokura	218954USOXPCT	5336

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1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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PENG, KUO LIANG

ART UNIT	PAPER NUMBER
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1712

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/069,726

Applicant(s)

TSUBOKURA ET AL.

Examiner

Kuo-Liang Peng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/31/05, 2/7/05 Amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 9-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 10, 12-17 and 19-24 is/are rejected.
- 7) ☒ Claim(s) 11 and 18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/31/05, 12/29/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. The Applicants' amendment filed on January 31, 2005 and supplemental amendment filed on February 7, 2005 were received. Claims 5-8 are deleted. Claims 1-4 are amended. Claims 9-24 are added. Now, Claims 1-4 and 9-24 are pending.
2. In view of the amendment, Claim rejection(s) under 35 USC 102 and 103 in paragraphs 3 and 6, the previous Office Action (Paper No. 0904) is/are removed.
3. The foreign priority documents, JP 2000-195763 and JP 2000-195764, have not been received.
4. The indicated allowability of Claims 1-2 are withdrawn in view of Applicants' newly presented reference(s) to Gupta (EP 818 493). Rejections based on the newly cited reference(s) follow.
5. The text of those sections of Title 35, U.S. code not included in this action can be found in a prior Office Action (Paper No. 0904).

***Claim Rejections - 35 USC § 102***

6. Claims 3-4, 9-10, 12-17 and 19-24 are rejected under 35 USC 102(b) as being anticipated by Ishio (JP 09-291213) as evidenced by Quaas (US 5 120 606).

Ishio discloses a polyarylene sulfide resin composition comprising a polyphenylene sulfide, a silicone oil and a filler. The silicone oil can have a viscosity of 30 to 5,000 mm<sup>2</sup>/s. The filler can be a carbon black used in an amount of from 10 to 50 wt%. ([0009], [0025], [0027], [0037]-[0038] and Examples) The silicone oil can be a polydimethylsiloxane can have hydroxy groups or alkoxy groups. ([0026]) Applicants' primarily argue that Ishio failed to disclose or suggest a) a polyarylene sulfide having the specific viscosity set forth in the present invention; and b) a silanol-modified dimethylsiloxane and/or an alkoxy-modified dimethylpolysiloxane set forth in the present invention. However, Applicants' arguments are not persuasive because of the following reasons: For a), molecular weight of the polyarylene sulfide can be up to 90,000. ([0009] and [0011]) Quaas teaches an equation describing the relationship between the viscosity and the molecular weight of a polyarylene sulfide. (col. 1, lines 27-40) Therefore, Ishio's polyarylene sulfide having molecular weight of 90,000 has a viscosity of about 6,950 poise. Note that the temperature and shear rate at which the viscosity is

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determined are substantially the same as those in the present invention. Therefore, Examiner has a reasonable basis to believe that the Quaas viscosity readings should be similar to those obtained under the conditions of the present invention.

For b), as mentioned in the previous Office action, Ishio does disclose a silicone oil having a viscosity of 30 to 5,000 mm<sup>2</sup>/s. The silicone oil can be a

polydimethylsiloxane can have hydroxy groups or alkoxy groups. Applicants further alleged that in the Examples, Ishio is silent on the use of a silanol-modified dimethylsiloxane and/or an alkoxy-modified dimethylpolysiloxane. (Remarks in

Supplemental Amendment, page 10, last paragraph) However, note that the

silicone oils illustrated in Examples are merely preferred embodiments. Ishio

certainly does not teach away the use of a polydimethylsiloxane having hydroxy

groups or alkoxy groups. See MPEP 2123. The polyarylene sulfide can contain *p*-

phenylene sulfide group and *m*-phenylene group. The polyarylene sulfide can be

partially branched. ([0012]-[0013]) The polyarylene sulfide can be cross-linked.

([0015]-[0020]) Fibrous filler and/or granular filler can be used. ([0035] and

[0039]). Note that whiskers such as zinc oxide whisker, boric acid aluminum

whisker, etc. ([0039]) can read on tabular filler because the aspect ratio of the

tabular filler is not specified. Thus, any short fibrous filler can be considered as a

tabular filler. Since epoxysilane, aminosilane, mercaptosilane, etc. (i.e., typical

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surface treatment agents) can be used. ([0041]) Therefore, Examiner has a reasonable basis to believe that the filler can be surface treated.

7. Claims 1-2 are rejected under 35 USC 102(b) as being anticipated by Gupta as evidenced by Kandathil (US 3 833 393).

Gupta discloses a polyarylene sulfide resin composition comprising a polyarylene sulfide, about 0.05 to about 1.5 wt% of a hydrocarbon wax lubricant and up to about 65 wt% of a filler. The hydrocarbon wax lubricant can be AC629A PE Wax. (page 3, lines 3-11, page 4, lines 16-38, page 7, lines 2-9, page 7, line 24) Kandathil further teaches that the PE Wax has an acid number of 14-17 and a melting point of 213 to 221oF. Not that the melting point of a material is closely related to the dropping point of the material. Therefore, Examiner has a reasonable basis to believe that the instant PE Wax possess a dropping point falling within the claimed range of the present invention.

8. Claims 11 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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None of the above references, taken alone or in combination, teaches or fairly suggests the copolymer set forth in the instant claims. Note that the copolymer in the instant claims are interpreted as the copolymer contains *p*-phenylene sulfide blocks and *m*-phenylene sulfide blocks as indicated in the specification (page 7, lines 7-9).

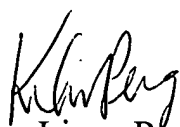
9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp  
April 15, 2005

  
Kuo-Liang Peng  
Primary Examiner  
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